Special Issue

Applications of Machine Learning with White-Boxing

Message from the Guest Editor

AI is used to build devices and machines that can learn and mimic cognitive the functions of humans. ML is the discipline that develops and investigates methods for predicting a response variable Y based on data collected on Y and potential predictors or features X1, X2, ..., Xp. If the response Y is binary or categorical with only a few labels, the ML method is called a classifier. If data have no Y or labels, the ML method is referred to as an unsupervised learning method. If the response Y is continuous, the ML methods behave like linear or non-linear regression methods. ML provides the predictions that are needed by AI. ML prediction methods are called Black-Box routines since they only provide a predicted value, with no explanation or interpretation of results. White-Boxing, another ML method, provides some explanation of how the outputs are related to the features. This Special Issue aims to explore the cutting-edge applications of White-Box machine learning models in AI systems. It provides a platform for researchers to share their innovative research, methodologies, and insights on the application and implications of White-Box approaches in machine learning.

Guest Editor

Dr. Ashok K. Singh

Department of Resorts, Gaming & Golf Management, University of Nevada, Las Vegas, NV 89154, USA

Deadline for manuscript submissions

20 February 2026

MDPI

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:
free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:
indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:
JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)